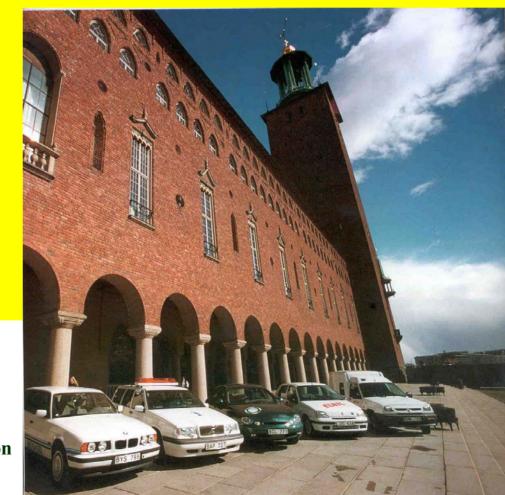
Co-ordinated procurement of AFV:s

- **◆** Market obstacles
- **♦ ZEUS**
- Other procurements



Gustaf Landahl
Head of department
City of Stockholm
Environment & Health administration



Market obstacles

High costs
Inadequate infrastructure
National barriers
Lacking incentives
User acceptance







Vehicle cost

Additional cost for cars

electric: 15 tEuro

biogas: 1,7 - 4 tEuro

ethanol: 5 tEuro

Fuel costs

electric: 0,2 Euro/km

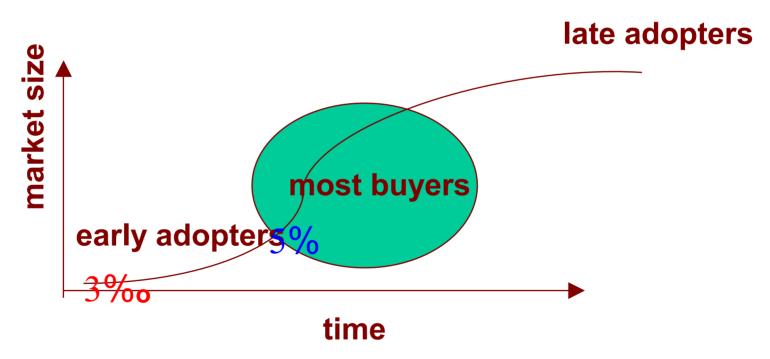
biogas: 0,95 Euro /km

ethanol: 0,87 Euro /km

- +Maintenance costs
- +Taxes
- +Insurance
- +Depreciation



Market introduction of new technology





ZEUS procurement consortium



The role of the ZPC

- Procurement process
- Prepare invitation to Tender
- Evaluation of tenders

Negotiate framework agreements





Invitation to Tender

- ◆ Formal procedural part including general and specific rules
- Description of vehicle user requirements
- Draft framework agreement
 - Maintenance preparedness
 - Limits to spare parts prices
 - Sanctions in case of late deliveries
 - Option transfer mechanism





Procurement procedures

- ◆ Directive 93/96/EEC of June 1993
- ◆ Invitation to tender sent to 14 Manufacturers (April 1997)
- ◆ 9 Tenders received (4 from France) June 1997





ZEUS co-ordinated procurement

Electric Cars Electric Vans

Firm orders 142 47

Option rights 190 230





Framework agreements









Other common procurements

- www.etanolbil.com
 - 4000 cars
 - Ford focus

◆ Biogas/natural gas vehicles

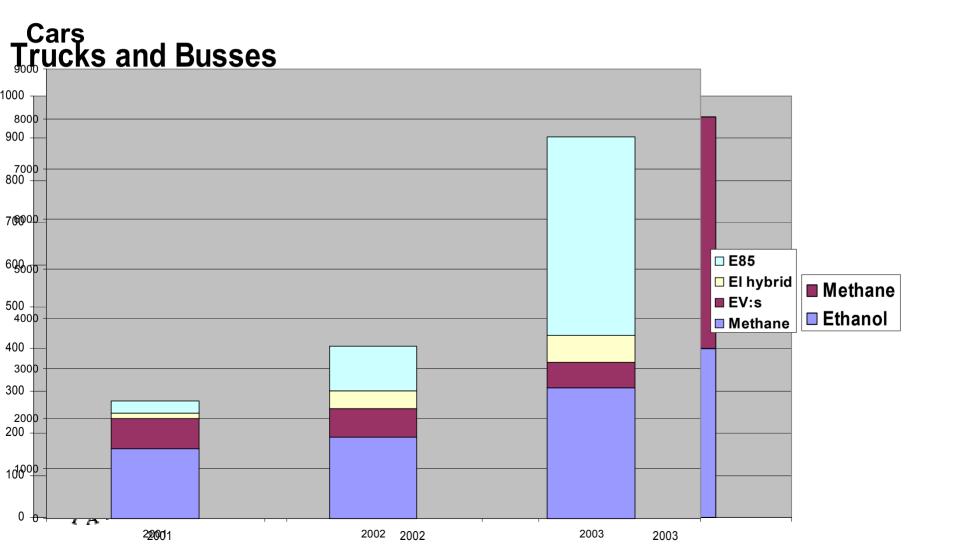
- Started (1200 applicants)

- Electric hybrid vans
 - Started





The Swedish fleet of AFV's



More information

Reducing Barriers to Zero and Low emission Mobility: A guide for cities

Fleets, car sharing and park&ride

National incentives and barriers to cleaner mobility

Local incentives and barriers to cleaner mobility

Telematics and transport

Vehicle monitoring and evaluation

Co-ordinated procurement of electric vehicles

User acceptance

Refuelling infrastructure

Travel low energy

www.zeus-europe.org www.miljobilar.stockholm.se

